
वस्त्रादि — रेशम (विस्कोस रेयान) के
फीते — विशिष्टि
(पहला पुनरीक्षण)

Textiles — Silk (Viscose Rayon)
Ribbon Tape — Specification
(First Revision)

ICS 59.060.10, 59.080.50

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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Technical Textiles for Clothtech Applications including Narrow Fabrics and Braids Sectional Committee had been approved by the Textile Division Council.

This standard defines the constructional specifications of silk (viscose rayon) tapes mainly used in defence supplies.

This standard, first published in 1982, This standard has been revised again to incorporate the following major changes:

- a) Title of the standard has been modified;
- b) All the amendments are incorporated;
- c) BIS certification marking clause has been modified;
- d) References to Indian Standard given in Annex A has been updated; and
- e) Sampling and criteria for conformity has been modified.

The composition of the Committee responsible for the formulation of this standard is given in Annex B.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

TEXTILES — SILK (VISCOSE RAYON) RIBBON TAPE — SPECIFICATION

(*First Revision*)

1 SCOPE

This standard covers 33 mm width silk (viscose rayon) ribbon tape with prominent wefttrib effect and with coloured stripe details as specified in the contract or order.

NOTE — For Defence supplies, three equal warp stripes are of Green, Golden Yellow and Green colours.

2 REFERENCES

The standards listed in Annex A contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

3 MANUFACTURE**3.1 Yarn**

Multifilament viscose rayon yarn of 16.5 tex dyed in Green and Golden Yellow (*see* Note) colours for warp and of 16.5 tex \times 3 dyed in Green for weft.

NOTE — For Defence supplies only.

4 REQUIREMENTS

4.1 The tape shall be free from spinning, weaving and dyeing defects.

4.2 The silk (viscose rayon) ribbon tape shall conform to the requirements as given in Table 1 and Table 2.

Table 1 Physical Requirements of Silk (Viscose Rayon) Ribbon Tape

(Clause 4.2)

Sl No.	Characteristic	Requirement	Tolerance	Method of Test, Ref to
(1)	(2)	(3)	(4)	(5)
i)	Length of roll, m, <i>Min</i>	50 or 100 as specified incontract or order	—	IS 1954
ii)	Total width, mm	33	+ 0 mm – 1 mm	
iii)	Stripe width, mm	11	+ 0 mm – 3 mm	
iv)	Ends in total width, <i>Min</i>	270	—	IS 1963
v)	Ends in each stripe, <i>Min</i>	90	—	
vi)	Picks/cm, <i>Min</i>	18	—	
vii)	Mass, g/m	8.5	\pm 0.5 g/m	IS 1964 (on 10 m sample)
viii)	Breaking strength (fullwidth \times 20 cm) at 450 mm/min rate, N(Kgf), <i>Min</i>	420 (43)	—	IS 1969

4.3 Stripes

Well defined and free from stains.

4.4 Selvedges

Straight providing firm texture to the ribbon tape.

4.5 Finish

In respect of colour, appearance and workmanship, the ribbon tape shall not be inferior to the sealed sample agreed to in the contract or order.

5 PACKING

5.1 Individual rolls wrapped in polyethylene film (see IS 2508) or water proof packing paper (see IS 1398) shall be supplied loose or packed as agreed to between the buyer and the seller.

6 MARKING

6.1 Each roll shall bear a label marked with the following:

- a) Name or trade-mark of manufacturer, nomenclature of the ribbon tape;

- b) Length (m) of the roll;
- c) Mass of the roll (g);
- d) Year of manufacture; and
- e) Any other information/instruction provided by the manufacturer/required under law.

6.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.

7 SAMPLING AND CRITERIA FOR CONFORMITY

7.1 Unless specified otherwise in the contract or order, the number of rolls/reels to be selected at random from a lot shall be as given in Table 3. To ensure randomness of selection, IS 4905 may be followed.

Table 2 Colour Fastness Requirements of Silk (Viscose Rayon) Ribbon Tape

(Clause 4.2)

Sl No.	Colour Fastness	Rating	Method of Test, Ref to
(1)	(2)	(3)	(4)
i)	Light	5 or better	IS 2454
ii)	Water	4 or better	IS 767
iii)	Perspiration	4 or better	IS 971
NOTE — Carbon-arc lamp may be used in place of xenon lamp for determining colour fastness to light, if so specified in the contract or order.			

Table 3 Sample Size for Tapes

(Clause 7)

Sl No.	Lot Size, Rolls/Reels	Sample Size, Rolls/Reels (For Length, Width, Ends and Picks)	Permissible No. of Defectives, Rolls/Reels	Sub-Sample Size, Rolls/Reels (For Remaining Requirements)
(1)	(2)	(3)	(4)	(5)
(i)	Up to 50	3	0	3
(ii)	51 to 150	5	0	3
(iii)	151 to 300	8	1	4
(iv)	301 to 500	13	1	5
(v)	501 and Above	20	2	7

NOTES

1 In the case of length, the value obtained for the length of each roll shall be compared with its specified, declared or marked length. The mean

percentage of deficiency in length, if any, shall be determined and made applicable to the lot.

2 In respect of mass, breaking strength mean + 0.4 Range shall not outpass specified values.

3 In respect of colour fastness, no failure shall be permissible.

7.2 For evaluating length, width, ends and picks, the rolls/reels selected as in col (3) of Table 3 shall constitute the test sample.

7.3 For evaluating breaking load, colour fastness, mass the rolls/reels selected as in col (5) of Table 3 shall constitute the test sample; these rolls/reels may be drawn from those selected for the purpose of **4.2**.

7.4 Criteria for Conformity

The criteria for conformity of the tape in respect of various characteristics shall be as follows:

Sl No.	Characteristic(s)	Criterion for Conformity
(1)	(2)	(3)
(i)	Length, width, ends and picks	Number of defective rolls does not exceed the corresponding number given in col (3) of Table 3
(ii)	Breaking load	'Mean — 0.6 range' \geq the specified value
(iii)	Colour fastness	All the test specimens pass the tests
(iv)	Mass	'Mean \pm 0.6 range' lie within the specified limits

ANNEX A

(Clause 2)

LIST OF REFERRED STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
IS 1398 : 1982	Specification for packing paper water proof, bitumen-laminated (<i>second revision</i>)	IS 2508 : 2016	Polyethylene Films and Sheets — Specification (<i>third revision</i>)
IS 1954 : 1990	Determination of length and width of woven fabrics — Methods (<i>second revision</i>)	IS/ISO 105-B02 : 2014	Textiles — Tests for colour fastness: Part B02 Colour fastness to artificial light: Xenon arc fading lamp test
IS 1963 : 1981	Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>)	IS/ISO 105-C10 : 2006	Textiles — Tests for colour fastness: Part C10 Colour fastness to washing with soap or soap and soda
IS 1964 : 2001	Textiles — Methods for determination of mass per unit length and mass per unit area of fabrics (<i>second revision</i>)	IS/ISO 105-E04 : 2013	Textiles — Tests for colour fastness — Part E04 Colour fastness to perspiration
IS 1969 (Part 1) : 2018	Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at maximum force using the strip method (<i>fourth revision</i>)		

ANNEX B*(Foreword)***COMMITTEE COMPOSITION**

Technical Textiles for Clothtech Applications including Narrow Fabrics and Braids Sectional Committee, TXD 39

<i>Organization</i>	<i>Representative(s)</i>
Additional Controller CQA (General Stores), DGQA, Ministry of Defence, New Delhi	SHRI A. CHOWDHURY (<i>Chairperson</i>)
Apparel Export Promotion Council New Delhi	SHRI PRAVEEN KUKREJA
Defence Materials & Stores Research & Development Establishment, Kanpur	SHRI A. K. YADAV MS PRIYANKA KATIYAR (<i>Alternate</i>)
DKTE's Society Textile & Engineering Institute, Ichalkaranji	DR S. B. VHANBATTE SHRI RAJANNA GOTIPAMUL (<i>Alternate</i>)
Federation of Indian Chambers of Commerce and Industry, New Delhi	SHRI ANU HANDA
ICAR - Central Institute for Research on Cotton Technology, Mumbai	DR P. JAGAJANANTHA DR T. SENTHILKUMAR (<i>Alternate</i>)
Indian Institute of Technology, Delhi	PROF AMIT RAWAL PROF BIPIN KUMAR (<i>Alternate</i>)
Indian Technical Textile Association, Mumbai	DR ANUP RAKSHIT SHRI VIKRAM JAIN (<i>Alternate</i>)
Intertek India, Gurugram	SHRI PRIYANK BHARADWAJ
JCT Limited, Phagwara	SHRI KUSHWINDER SINGH SHRI ARWINDER SINGH (<i>Alternate</i>)
M K U Limited, Kanpur	SHRI SUMIT KHANDELWAL SHRI RAJIB PAL (<i>Alternate</i>)
Motilal Dulichand Pvt Ltd, Kanpur	SHRI SHAILENDRA NATH MISRA SHRI SUDHIR SHIVHARE (<i>Alternate</i>)
National Textile Corporation, New Delhi	SHRI R. K. YADAV
Office of the Textile Commissioner, Mumbai	SHRI V. K. KOHLI SHRI HUMAYUN K. (<i>Alternate</i>)
Ordnance Parachute Factory, Kanpur	SHRI V. M. BAGADE SHRI S. KONDAIAH (<i>Alternate</i>)
Planet Analysis Pvt Ltd, Kanpur	SHRI PRASHANTA BISWAS
S L Bantia Textiles Industries Pvt Ltd, Surat	SHRI SANTOSH KUMAR BANTHIA
SGS Limited, Gurugram	MS ANITHA JEYARAJ SHRI GAURAV SARASWAT (<i>Alternate</i>)
Shipra International, Kanpur	SHRI ABHISHEK KUMAR AGRAWAL

<i>Organization</i>	<i>Representative(s)</i>
Sky Industries Ltd, Navi Mumbai	SHRI KAPIL MEHROTRA SHRI MICHAEL (<i>Alternate</i>)
Synthetic and Art Silk Mills Research Association, Mumbai	SHRI SANAJY SAINI SHRI PREMNATH SURWASE (<i>Alternate</i>)
Testtex India Laboratories Pvt Ltd, Mumbai	SHRIMATI MEETA SHIGALA SHRI CHANDRAKANT (<i>Alternate</i>)
Textiles Committee, New Delhi	SHRI R. CHANDRAN SHRI GANESH P. BANGAR (<i>Alternate</i>)
Thanawala and Co, Mumbai	SHRI HEMAL THANAWALA SHRI VIVAN THANAWALA (<i>Alternate</i>)
The Bombay Textile Research, Association, Mumbai	SHRI SHAIKH RIYAZ AHMED DR PRASANTA KUMAR PANDA (<i>Alternate</i>)
U P Textile Technological Institute, Kanpur	DR PRASHANT VISHNOI
Universal Yarn and Tex Pvt Ltd, Kanpur	SHRI RAJIV K. BHARTIYA
BIS Directorate General	SHRI J. K. GUPTA SCIENTIST 'E'/DIRECTOR AND HEAD (TEXTILES) [REPRESENTING DIRECTOR GENERAL (<i>Ex-officio</i>)]

Member Secretary
SHRI TANISHQ AWASTHI
SCIENTIST 'B'/ASSISTANT DIRECTOR
(TEXTILES), BIS

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This Indian Standard has been developed from Doc No.: TXD 39 (20358).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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